

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-17. (canceled)

18. (currently amended) A computer-readable information recording medium on which there is recorded:

an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information, sub-video control information, wherein;

the sub-video information indicating a sub-video displayable at least partially over the main-video

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information element;

a play list information file for collectively storing, in an area which is different from an area into which the object data file is stored a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and

an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item.

19. (currently amended) The computer-readable information recording medium according to claim 18, wherein

the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types.

20. (currently amended) The computer-readable information recording medium according to claim 19, wherein

the sub-video control information further includes sub-frame range information to specify at least a partial area of the sub-video as a sub-frame,

the control information element comprises information for controlling the sub-video information by a unit of the sub-frame, and

the type indication information indicates the presence or absence, ~~or the effectiveness or ineffectiveness~~ of the control information elements by the unit of the sub-frame.

21. (previously presented) The computer-readable information recording medium according to claim 19, wherein the type indication information comprises table information including one bit of information by each of the types.

22. (previously presented) The computer-readable information recording medium according to claim 21, wherein the table information includes extension bit information which is not associated with the types, and a part occupied by the control information elements in the sub-video control information is variable-length.

23. (previously presented) The computer-readable information recording medium according to claim 18, wherein the control information element includes dynamic control information to display the sub-video information dynamically.

24. (previously presented) The computer-readable information recording medium according to claim 18, wherein the control information element includes shading-display control information to selectively shade an opaque part out of the sub-video and display it over the main-video.

25. (previously presented) The computer-readable information recording medium according to claim 18, wherein the control information element includes (i) button information which defines at least a part of the sub-video which is to be displayed over the main-video, as a button video part which functions as a button, and (ii) highlight information which defines how to perform highlight-display control over the button video part.

26. (previously presented) The computer-readable information recording medium according to claim 18, wherein

the main-video information, the sub-video information and the sub-video control information are divided into predetermined packet units and multiplexed, and further streamed relatively into the first stream composed of the divided main-video information, the second stream composed of the divided sub-video information set and the second stream composed of the divided sub-video control information.

27. (currently amended) An information record apparatus comprising:

a first record device for recording an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information, sub-video control information, wherein

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements;

a second record device for recording a play list information file for collectively storing in an area which is different from an area into which the object data file is stored a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item and

a third record device for recording an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item.

28. (currently amended) The information record apparatus according to claim 27, wherein

the first record device records the second stream having the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence,

~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types.

29. (currently amended) An information record method comprising:

a first record process of recording an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information and sub-video control information, wherein

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements;

a second record process of recording a play list information file for collectively storing in an area which is different from an area into which the object data file is stored, a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and

a third record process of recording an object information file for collectively storing object information

which includes information for indicating a storing position of the first and second streams corresponding to each item.

30. (currently amended) The information record method according to claim 29, wherein

the first record process records the second stream having the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types.

31. (currently amended) An information reproduction apparatus for reproducing information on an information record medium on which there are recorded:

an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information, ~~and~~ and sub-video control information, wherein, the sub-video information indicating a sub-video displayable at least partially over the main-video, the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or~~

~~ineffectiveness~~ of the control information element a play list information file for collectively storing in an area which is different from an area into which the object data file is stored, a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item,

said information reproduction apparatus comprising:

a reproduction device for reproducing (i) the play list information, (ii) the object information which corresponds to the play list information, (iii) the video information of the first stream which corresponds to the object information, and (iv) the sub-video information and the sub-video control information of the second stream which corresponds to the object information;

a display output device capable of outputting the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device to display-control the sub-video information in the method and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control

information element which is included in the reproduced sub-video control information.

32. (currently amended) The information reproduction apparatus according to claim 31, wherein

the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types,

the control device controls the display output device to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the type indication information which is included in the reproduced sub-video control information.

33. (currently amended) An information reproduction method of reproducing information on an information record medium on which there are recorded: an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information and sub-video control information, wherein,

sub-video information indicating a sub-video displayable at least partially over the main-video, the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements; a play list information file for collectively storing in an area which is different from an area into which the object data file is stored, a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item,,

said information reproduction method comprising:

a reproduction process of reproducing (i) the play list information, (ii) the object information which corresponds to the play list information, (iii) the video information of the first stream which corresponds to the object information, and (iv) the sub-video information and the sub-video control information of the second stream which corresponds to the object information; and

a control process of controlling a display output device capable of outputting the reproduced sub-video information over the reproduced video information, to display-control the

sub-video information in the method and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the information to indicate presence or absence, ~~or effectiveness~~ ~~or ineffectiveness~~ of the control information element which is included in the reproduced sub-video control information.

34. (currently amended) The information reproduction method according to claim 33, wherein

the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types,

the control process controls the display output device to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the type indication information which is included in the reproduced sub-video control information.

35. (currently amended) An information record reproduction apparatus comprising:

a first record device for recording an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information and sub-video control information, wherein

the sub-video information indicating a sub-video displayable at least partially over the main-video;

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements;

a second record device for recording a play list information file for collectively storing in an area which is different from an area into which the object data file is stored, a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item;

a third record device for recording an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item;

a reproduction device for reproducing (i) the play list information, (ii) the object information which corresponds to the play list information, (iii) the video information of the first

stream which corresponds to the object information, and (iv) the sub-video information and the sub-video control information of the second stream which corresponds to the object information;

a display output device capable of outputting the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device, to display-control the sub-video information in the method and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information element which is included in the reproduced sub-video control information.

36. (currently amended) The information record reproduction apparatus according to claim 35, wherein

the third record device records the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set to advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types,

the control device controls the display output device

to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the type indication information which is included in the reproduced sub-video control information.

37. (currently amended) An information record reproduction method comprising:

a first record process of recording an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information and sub-video control information wherein,

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements;

a second record process of ~~recording~~ recording a play list information file for collectively ~~storing~~ storing, in an area which is different from an area into which the object data file is stored, a play list information which defines a plurality

of item information each indicating a start time and an end time of the first and the ~~second~~ second streams by a unit of item; and

a third record process of recording an object information file for collectively storing object information which includes information for indicating a ~~storing~~ storing position of the first and second streams corresponding to each item

a reproduction process of reproducing (i) the play list information, (ii) the object information which corresponds to the play list information, (iii) the video information of the first stream which corresponds to the object information, and (iv) the sub-video information and the sub-video control information of the second stream which corresponds to the object information; and

a control process of controlling a display output device capable of outputting the reproduced sub-video information over the reproduced video information, to display-control the sub-video information in the method and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the information to indicate presence or absence, ~~or effectiveness~~ ~~or ineffectiveness~~ of the control information element which is included in the reproduced sub-video control information.

38. (currently amended) The information record reproduction method according to claim 37, wherein

the third record process records the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types,

the control process controls the display output device to display-control the sub-video information in the various methods and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the type indication information which is included in the reproduced sub-video control information.

39. (currently amended) A computer-readable storage medium storing thereon a computer program for a record control, to control a computer disposed at an information record apparatus comprising:

a first record device for recording an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information and sub-video control

information, wherein

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information element;

a second record device for recording a play list information file for collectively storing in an area which is different from an area into which the object data file is stored a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and

a third record device for recording an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item,

said computer program making the computer function as at least a part of the first record device, the second record device and the third record device.

40. (currently amended) A computer-readable storage medium storing thereon a computer program product for a reproduction control to control a computer disposed at an

information reproduction apparatus for reproducing information on an information record medium on which there are recorded:

an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information, ~~and~~ and sub-video control information, wherein,

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements a play list information file for collectively storing in an area which is different from an area into which the object data file is stored, a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item, ~~and~~ said information reproduction apparatus comprising:

a reproduction device for reproducing (i) the play list information, (ii) the object information which corresponds to the play list information, (iii) the video information of the first

stream which corresponds to the object information, and (iv) the sub-video information and the sub-video control information of the second stream which corresponds to the object information;

a display output device capable of outputting the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device to display-control the sub-video information in the method and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information element which is included in the reproduced sub-video control information,

said computer program product making the computer function as at least a part of the reproduction device, the display output device and the control device.

41. (currently amended) A computer-readable storage medium storing thereon a computer program product for a record reproduction control to control a computer disposed at an information record reproduction apparatus comprising:

a first record device for recording an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a

second stream having sub-video information and sub-video control information, wherein,

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements;

a second record device for recording a ~~play~~ play list information file for collectively storing, in an area which is different from an area into which the object data file is stored a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item;

a third record device for recording an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item;

a reproduction device for reproducing (i) the play list information, (ii) the object information which corresponds to the play list information, (iii) the video information of the first stream which corresponds to the object information, and (iv) the sub-video information and the sub-video control information of the second stream which corresponds to the object information;

a display output device capable of outputting the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device, to display-control the sub-video information in the methods and display the sub-video information over the main-video, on the basis of the control information element whose presence ~~or effectiveness~~ is shown by the information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information element which is included in the reproduced sub-video control information,

said computer program product making the computer function as at least a part of the first record device, the second record device, the third record device, the reproduction device, the display output device and the control device.

42. (currently amended) A computer readable-storage medium encoded with a data structure including a control signal, said data structure having:

an object data file for collectively storing object data which includes a first stream having video information to indicate a main-video and a second stream having sub-video information, sub-video control information, wherein,

the sub-video information indicating a sub-video displayable at least partially over the main-video,

the sub-video control information including (i) a control information element for display control of the sub-video information in a method set in advance and (ii) information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements;

a play list information file for collectively storing in an area which is different from an area into which the object data file is stored a play list information which defines a plurality of item information each indicating a start time and an end time of the first and the second streams by a unit of item; and

an object information file for collectively storing object information which includes information for indicating a storing position of the first and second streams corresponding to each item.

43. (currently amended) The computer readable-storage medium encoded with a data structure including a control signal according to claim 42, wherein

the sub-video control information includes (i) a plurality of types of control information elements for display control of the sub-video information in various methods set in advance and (ii) type indicating information to indicate presence or absence, ~~or effectiveness or ineffectiveness~~ of the control information elements by each of the types.